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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,950	03/05/2002	Moon Soo Lee	123056-05004487	5369

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EXAMINER	
ALHIJA, SAIF A	

ART UNIT	PAPER NUMBER
2128	

DATE MAILED: 05/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/087,950	LEE ET AL.	
	Examiner	Art Unit	
	Saif A. Alhija	2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 February 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 March 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-15 have been presented for examination.

Response to Amendment

2. i) Examiner thanks the Applicant for amending claim 3. Therefore the claim objection is withdrawn.

ii) Examiner thanks the Applicant for amending claims 3, 7, 10, 13, 14, and 15. Therefore the 35 U.S.C. 112, first and second paragraph rejections are withdrawn.

iii) Examiner acknowledges the typo regarding the 35 U.S.C. 102(e) rejection of claim 12. The claim is only rejected under 35 U.S.C. 103(a) as per the correction below.

Response to Arguments

3. Applicant's arguments filed 9 February 2006 have been fully considered but they are not persuasive.

i) Applicant argues that the reference does not disclose "for identifying a portion of very high probability of reuse using the information necessary for program analysis extracted in the code" as well as "automatically generating the codes for wrapping the program workflow which includes business logic identified." However, the reference discloses in columns 141 and 142, business logic reuse of certain components as well as wrapping the components. The reference also discloses utilizing automation in the architecture for the wrapping process as can be seen in columns 217-218 and figure 83, for example.

ii) Applicants have not argued the merits of the dependent claims in the Remarks on page 13.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1-10, and 13-15 are rejected** under 35 U.S.C. 102(e) as being clearly anticipated by **Bowman-Amuah "System, Method, and Article of Manufacture for a Globally Addressable Interface in a Communication Services Patterns Environment", U.S. Patent No. 6,289,382, hereafter referred to as "Bowman-Amuah".**

Regarding Claim 1:

Bowman-Amuah discloses An apparatus for wrapping existing procedure oriented program into component based system, comprising:

a code analyzing portion for extracting information necessary for program analysis in source program or codes implemented with source procedural language; **(Column 141, Lines 22-35)**

a business logic identifying portion for identifying a portion of very high probability of reuse using the information necessary for program analysis extracted in the code analyzing portion; **(Column 141, Lines 22-35)**

and a component wrapper generating portion for automatically generating the codes for wrapping the program workflow which includes business logic identified in the business logic identifying portion. **(Column 141, Lines 17-27)**

Regarding Claim 2:

Bowman-Amuah discloses The apparatus as claimed in claim 1, wherein the component wrapper generating portion comprises:

a component framework for reusing existing system as a component; **(Column 215, Lines 36-46)**

a legacy frame work which is a framework of system to be associated with the component framework; **(Column 215, Lines 36-46. Column 138, Lines 56-65)**

and an intermediate framework for linking the component framework with the legacy frame work, and capturing screen information which is input/output to/from the legacy framework, thereby automatically inserting or extracting information. **(Column 215, Lines 36-46. Column 138, Lines 56-65)**

Regarding Claim 3:

Bowman-Amuah discloses The apparatus as claimed in claim 2, wherein the intermediate framework comprises:

a program scheduler having navigation information and interaction relationship between programs, and having schedule information about whether a plurality of screens are for input or for output; **(Column 50, Lines 60-67)**

a meta-data pool for storing meta-information for the screens of programs included in a pre-registered workflow; **(Column 41, Lines 25-31. Figure 66.)**

a record handler for analyzing the command required by the component framework, obtaining the meta information of input/output data from the meta-data pool, thereby finding which are the screens entered from the present existing system and which are the input/output data corresponding to the screens, and for transferring the input/output data; **(Column 52, Lines 16-21. Figure 145)**

and a record adapter for receiving input screen from the legacy component, differentiating the data associated with the input/output from the information for display of screen only, and providing it to the record handler. **(Column 44, Lines 51-61)**

Regarding Claim 4:

Bowman-Amuah discloses The apparatus as claimed in claim 3, wherein the record adapter stores temporarily the information of legacy component, and transforms different characters of ASCII, EBCDIC, etc. **(Column 56, Lines 12-18)**

Regarding Claim 5:

Bowman-Amuah discloses The apparatus as claimed in claim 3, wherein the program scheduler stores the information about how the program is used for any usage of input, output or input/output usage. **(Column 50, Lines 60-67)**

Regarding Claim 6:

Bowman-Amuah discloses A method for wrapping existing procedure oriented program into component based system, comprising the steps of:

extracting information necessary for program analysis in source program or codes implemented with source procedural language; **(Column 20, Lines 20-28)**

identifying a portion of very high probability of reuse using the information necessary for program analysis extracted in the code analyzing portion; **(Column 141, Lines 22-35)**

and generating automatically the codes for wrapping program workflow which include business logic identified in the business logic identifying portion. **(Column 141, Lines 17-27)**

Regarding Claim 7:

Bowman-Amuah discloses The method as claimed in claim 6, wherein the step of identifying comprises the steps of:

calculating the fitting index of user requirement using weighting value of the constituent elements inputted by user depending on a scale of each module in order to express business type to be identified; **(Column 141, Lines 22-35)**

a) determining where the calculated fitting index is the largest, then searching the flows within program for executing module in the program including the module where the fitting index is the largest, **(Column 141, Lines 22-35)**

b) searching input/output variables based on variables associated with screen decoration having the direct relations with user; **(Column 215, Lines 36-46. Column 138, Lines 56-65)**

identifying automatically variables necessary for constraint condition and interface using input/output variables and flows (path) within the searched program; **(Column 120, Lines 10-18. Column 121, Lines 52-63)**

and defining the variables to be constraint condition and variables to be interface using the identified variables, to generate the code for the wrapping. **(Column 120, Lines 10-18. Column 121, Lines 52-63)**

Regarding Claim 8:

Bowman-Amuah discloses The method as claimed in claim 6, wherein the calculation of the fitting index in the step of calculating the fitting index, lies in that it calculates fitness (fitting index) about the user requirement in Top-Down method which searches form large portion to small portion in scale. **(Column 163, Lines 51-62)**

Regarding Claim 9:

Bowman-Amuah discloses The method as claimed in claim 7, wherein the constraint condition consists of control variables necessary to obtain the flow for executing the module of the desired business logic, and wherein the interface consists of variables utilized in input/output portion of data. **(Column 141, Lines 22-35)**

Regarding Claim 10:

Bowman-Amuah discloses The method as claimed in claim 7, wherein in the step of searching the flows within the program and the input/output variables, the step of searching the flows within the program comprises the steps of:

collecting the flow information between paragraphs and the information about the condition thereof by the unit of modules and paragraphs in order to adjust the inferior information of the program systematically when the programs for the detailed analysis of program, the least modules having business logics, and the paragraph candidates are known, searching call relations between the paragraphs using function call statement for searching call relations between the modules; **(Column 68, Lines 30-45)**

eliminating redundancy or recursive portions of the paragraph calls for inclusive call relations, then reconstructing the paragraph call relations; identifying the flow of the program taking account of only unstructured statement sentence of the flow information between the paragraphs for searching the paragraph flow by the unstructured statement; **(Column 74, Lines 35-38)**

and generating call relation tree using the call relation information of the paragraph acquired and the program flow information of the unstructured sentence. **(Column 266, Lines 1-9)**

Regarding Claim 13:

Bowman-Amuah discloses The method as claimed in claim 7, wherein in the step of searching the flows within program and the input/output variables, the step of searching the input/output variables comprises the steps of:

analyzing the screen information of each variable and field, by analyzing the input/output variables which exist in the program having business logic to be reused, the information about user interface or forms for expressing a screen; **(Column 38, Lines 17-28. Figure 75.)**

determining whether or not a field exists in the analyzed screen information; discriminating, whether the field is a portion for input/output of actual data or only for decoration of screen when the field exists in the analyzed screen information; **(Column 38, Lines 17-28. Figure 75.)**

and a) registering, if the field is for input/output (I/O) field, the field as an input/output variable since the field is used as input/output variable, **(Column 38, Lines 17-28. Figure 75.)**

b) registering, if the field is not for the portion for input/output, the field as meta data since the field is used as decoration of the screen. **(Column 38, Lines 17-28. Figure 75.)**

Regarding Claim 14:

Bowman-Amuah discloses The method as claimed in claim 7, wherein the step of identifying automatically variables necessary for constraint condition and interface, comprises the steps of:

selecting Unique Path having the workflow that user wants in the generated tree; **(Column 169, Lines 59-67. Column 170, Lines 1-4)**

checking whether there exist Critical variable such as variables deciding the paragraph flow or input/output in the designated workflow; **(Column 185, Lines 61-67)**

tracking, for the critical variable, the list of variables affecting the critical variable using impact analysis, or tracking, for the variables transferred between programs, continuously the

calling programs or the called programs and identifying the usage of variables; **(Column 63, Lines 28-37. Figure 149)**

discriminating whether the identified variables are those of determining workflow path or those utilized as a constraint condition; **(Column 120, Lines 10-18. Column 121, Lines 52-63)**

and a) for the identified variables used as a control variable, adding them to the list of the control variables, **(Column 120, Lines 10-18. Column 121, Lines 52-63)**

b) for the identified variables used as a constraint condition, adding them to the list of the a constraint condition. **(Column 120, Lines 10-18. Column 121, Lines 52-63)**

Regarding Claim 15:

Bowman-Amuah discloses A recording medium capable of being read by a digital processing apparatus, in which programs capable of being executed by the digital processing apparatus are implemented by types so as to perform a method for wrapping existing procedure oriented program into component based system, wherein the method comprises the steps of:

extracting information necessary for program analysis in source program or codes implemented with source procedural language; **(Column 141, Lines 22-35)**

identifying a portion of very high probability of reuse using the information necessary for program analysis extracted in the code analyzing portion; **(Column 141, Lines 22-35)**

and generating automatically the codes for wrapping program workflow which includes business logic identified in the business logic identifying portion, the step of identifying comprising the steps of: **(Column 141, Lines 17-27)**

calculating the fitting index of user requirement using weighting value of the constituent elements inputted by user depending on a scale of each module in order to express business type to be identified; **(Column 141, Lines 22-35)**

a) determining whether the calculated fitting index is the largest, then searching, for the largest fitting index, the flows within program for executing module in the program including the module where the fitting index is the largest, **(Column 141, Lines 22-35)**

b) searching input/output variables based on variables associated with screen decoration having the direct relations with user; **(Column 215, Lines 36-46. Column 138, Lines 56-65)**

identifying automatically variables necessary for constraint condition and interface using input/output variables and flows (path) within the searched program; **(Column 120, Lines 10-18. Column 121, Lines 52-63)**

and defining the variables to be constraint condition and variables to be interface using the identified variables, to generate the code for the wrapping. **(Column 120, Lines 10-18. Column 121, Lines 52-63)**

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. **Claim(s) 11 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bowman-Amuah "System, Method, and Article of Manufacture for a Globally Addressable Interface in a Communication Services Patterns Environment", U.S. Patent No. 6,289,382, hereafter referred to as "Bowman-Amuah".**

Regarding Claim 11:

Bowman-Amuah does not explicitly disclose The method as claimed in claim 7, wherein in the step of searching call relations between the paragraphs, the function call statement utilizes CALL sentence and PERFORM sentence in COBOL.

However, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize function call statements that are present in COBOL, which is disclosed in the prior art in order to allow for determining paragraph call relations.

Regarding Claim 12:

Bowman-Amuah does not explicitly disclose The method as claimed in claim 10, wherein in the step of identifying the flow of the program, the unstructured statement utilizes at least one of GO TO sentence, CONTINUE sentence and BREAK sentence in COBOL.

However, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize unstructured statements that are present in COBOL, which is disclosed in the prior art in order to allow for identification of the flow of the program.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. All Claims are rejected.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saif A. Alhija whose telephone number is (571) 272-8635. The examiner can normally be reached on M-F, 11:00-7:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on (571) 272-2279. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SAA

May 10, 2006

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